

DR. KARL JORDAN'S EXPEDITION TO SOUTH-WEST AFRICA
AND ANGOLA: NEW LYMANTRIIDAE FROM ANGOLA.

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(With Plate XII.)

THE insects from Mt. Moco (March), Congulu (April), Quirimbo (May) and Morro de Pundo (May) were obtained on Dr. Jordan's Expedition in 1934 and those from Gamba (December 1934) and Andulo (January 1935) by R. Braun, who had been Dr. Jordan's companion in Angola.

An account of the localities visited by Dr. Jordan is given in the Narrative of the Expedition; cf. pp. 46-62.

All types are in the Tring Museum.

1. *Olapa brachycerca* sp. nov. (Pl. XII, fig. 2).

♂. Palpus, head, body and legs ochraceous buff to light ochraceous buff; a streak of fuscous down the inner side of femur and tibia of foreleg. Antennal shaft whitish; pectinations tawny olive, shading to fuscous basally. Wings and fringes, above and beneath, whitish.

♀. Resembles the ♂, but the pectinations of the antenna entirely fuscous. The streak of fuscous on the inner side of foreleg less extensive. Anal tuft hair brown, the hair-scales smooth and compact. Abdomen varies in length, but averages the same length as inner margin of hindwing.

Expanse: ♂♂ 34-39 mm., ♀♀ 47-50 mm.

1 ♂ (holotype) and 3 ♂♂ (paratypes), Quirimbo, 7-12 May 1934; 2 ♂♂ (paratypes), Morro de Pundo, 21 May 1934; 1 ♀ (allotype) and 2 ♀♀ (paratypes), Fazenda Congulu, 7-11 April 1934.

2. *Olapa macrocerca* sp. nov. (Pl. XII, fig. 3).

♀. Resembling the last species (*O. brachycerca*), but with wings and fringes light buff. Antennal shaft light buff, pectinations tawny olive. Abdomen distinctly longer than inner margin of hindwing; anal tuft cinnamon buff, large and rather bushy. The expanse is also greater than in *O. brachycerca*, and the genitalia present differences.

Expanse: ♀♀ 45-56 mm.

1 ♀ (holotype) and 19 ♀♀ (paratypes), Quirimbo, May 1934; 1 ♀ (paratype), Fazenda Congulu, 17-22 April 1934.

3. *Leucoma hololeuca* Hampson, 1910.

28 ♀♀, Quirimbo, 7-20 May 1934; 6 ♀♀, Fazenda Congulu, 7-16 April 1934.

This species is superficially very similar to *L. albissima* B.-Baker, 1911, which was also taken plentifully at Quirimbo and Fazenda Congulu. In the ♀ it may be distinguished by the absence of the black spot on the discocellulars, a rather less shiny surface on the forewing, and the fact that the veins M^2 and Cu^1 in both wings rise well apart at their point of origin, whereas in *L. albissima* they arise close together or even from a point.

4. *Cropera celaenogyia* sp. nov. (Pl. XII, fig. 14).

♂. Palpus fuscous black, on the lower side at the base orange buff. Antennal shaft fuscous black, pectinations drab. Head and thorax warm buff, mixed on the patagium with fuscous black. Abdomen above and beneath, pectus and legs warm buff to light buff, the legs strongly marked on the inner side with fuscous black, the tarsi almost completely fuscous black. Wings semi-hyaline. Forewing pinkish buff, the veins and termen defined with fuscous; fringe pinkish buff. Hindwing and fringe light buff. *Underside* of both wings and fringes as on upperside.

Expanse: ♂ 39 mm.

1 ♂ (holotype), Gamba, December 1934.

This species is closely allied to *Cropera stilpnaroma* Hering, 1926, and to *Olapa furva* Hampson, 1905. It will probably be necessary to transfer these three species to a new genus, but the material at my disposal is not at present sufficient for the investigation.

5. *Cadurca moco* sp. nov. (Pl. XII, fig. 30).

♂. Palpus fuscous, on the inner side pale pinkish buff. Antenna fuscous, the shaft streaked with pale pinkish buff. Head, body and legs fuscous mixed with pale pinkish buff, and with patches of warm buff on head, patagium, pectus and venter. Wings whitish, mixed to a slight extent with fuscous, giving a greyish effect; all veins, and the termen in both wings, defined with fuscous; fringes pinkish buff. *Underside* of both wings, and fringes, as on upperside.

♀. Palpus and frons warm buff, thorax and abdomen light buff, a patch of fuscous black on each side of the patagium behind the antenna. Pectus, venter and legs warm buff mixed with light buff, the legs heavily striped with fuscous black. Antenna fuscous black. Wings semi-hyaline, light buff; all veins, and the termen in both wings, defined with Dresden brown; fringes light buff. *Underside* of both wings, and fringes, as on upperside.

Expanse: ♂♂ 33-38 mm., ♀♀ 45-54 mm.

1 ♂ (holotype), 1 ♀ (allotype), 2 ♂♂ and 1 ♀ (paratypes), Mt. Moco, 13-18 March 1934; 1 ♀ (paratype), Gamba, December 1934.

The ♂ resembles *Cadurca venata* Swinhoe, 1906, and *Cadurca dianeura* Hering, 1928, in both of which the apex of the hindwing is rather pointed and projects well beyond the termen of the forewing. In the present species the apex is more rounded and the projection slight. The ground colour of the wings in the present species is paler than in those named above.

The ♀ is superficially rather similar to the ♀ of *Cropera phaeophlebia* Hampson, 1910, but has black antennae, as compared with light brown in the other species.

6. *Laeliophila seydeli* Hering, 1932 (Pl. XII, fig. 23).

♀. Wings longer and narrower than in the ♂. Forewing drab grey, the veins darker, and the lower margin of the cell edged with fuscous scales; fringe tilloul buff. Hindwing and fringe tilloul buff. *Underside* of both wings, and fringes, tilloul buff; costa of both wings edged narrowly with fuscous.

Expanse: ♀ 37 mm., ♂♂ 33-36 mm.

1 ♀ (neallotype) and 4 ♂♂, Mt. Moco, 15-18 March 1934.

7. *Crorema jordani* sp. nov. (Pl. XII, fig. 25).

♂. Palpus light buff mixed with fuscous. Antennal shaft warm buff, the pectinations somewhat darker. Head and thorax orange buff. Abdomen above and beneath, pectus and legs warm buff to light buff, the legs striped on the inner side with fuscous. Forewing pale orange yellow, mixed towards the base of the costa with orange buff; a series of eight rounded benzo-brown spots placed interneurally; the first, which is faint, above vein R^5 ; the second larger and slightly more basad, above vein M^1 ; the third, still larger and slightly more basad, above vein M^2 ; the fourth, slightly more proximad, above vein M^3 ; the fifth and sixth, large, above veins Cu^1 and Cu^2 ; the seventh, not in line with the fifth and sixth, below vein Cu^2 ; the eighth, rather indistinct, in a line between the seventh and the inner margin; fringe maize yellow. Hindwing cream colour; fringe maize yellow. *Underside* of both wings, and fringes, maize yellow, the spots on the forewing faintly visible.

♀. Resembles the ♂; the spots on the forewing indistinct and apparently oval in form.

Expanse: ♂♂ 31–38 mm., ♀ 48 mm.

1 ♂ (holotype) and 6 ♂♂ (paratypes), Mt. Moco, March 1934. 1 ♀ (allotype) and 22 ♂♂ (paratypes), Gamba, December 1934.

Near to *Crorema evanescens* Hampson, 1910, but with larger and rounded spots on the forewing. In well-marked specimens there are two spots below vein Cu^2 , whereas in *C. evanescens* there appears to be only one. The three spots below veins M^3 , Cu^1 and Cu^2 are in line with each other in *C. evanescens*, but not in the present species, and the genitalia show considerable differences.

8. *Stracena promelaena* Holland, 1893.

3 ♂♂, Fazenda Congulu, 7–16 April 1934.

These insects are considerably larger (expanse 51–52 mm.) than males from the Cameroons and Gold Coast. All have a broad snuff-brown terminal band running from vein Cu^2 to the anal angle. I can, however, find no difference in the genitalia.

9. *Pirgula stictogonia* sp. nov. (Pl. XII, fig. 10).

♂. Palpus whitish, shaded with fuscous on the outer side. Antenna cartridge buff, tinged with cream buff at the base of the shaft. Head, body and legs cartridge buff to whitish, mixed lightly with cream buff on head and thorax; a streak of fuscous down the whole of the inner side of foreleg, and a few fuscous hair-scales on the inner side of tibia and tarsus of middle leg. Wings hyaline, whitish; the base of the costa in the forewing, for a distance of about three millimetres, edged narrowly with fuscous black; a fuscous-black apical spot in the angle between veins R^3 and R^4 , and a second spot subterminally between veins R^5 and M^1 ; a further spot just above the anal vein, almost touching the meeting-place of vein and tornus; fringe whitish; on the hindwing a fuscous-black spot just above the 2nd anal vein, almost touching the meeting-place of vein and anal angle; fringe whitish. *Underside* of both wings, and fringes, whitish; the fuscous-black spots reproduced as on the upperside.

♀. Resembles the ♂, but with no fuscous on the palpus, the head and thorax more strongly tinged with cream buff, and with a further small fuscous-black subterminal spot on the forewing, below vein M^1 .

Expanse: ♂ 41 mm., ♀ 44 mm.

1 ♂ (holotype) and 1 ♀ (allotype), Quirimbo, 7-12 May 1934.

May be easily distinguished by the position of the spots near the tornus of the forewing and the anal angle of the hindwing.

10. *Euproctis conionipha* sp. nov. (Pl. XII, fig. 22).

♂. Palpus pinkish buff, the tip lighter. Antennal shaft whitish, pectinations pinkish buff. Head, body and legs cartridge buff to whitish. Forewing cartridge buff irrorated with fuscous, the irroration absent in the basal, costal and terminal areas; the costal area and at the lower margin of the cell lightly tinged with warm buff; fringe cartridge buff. Hindwing, underside of both wings, and fringes, whitish.

♀. Resembles the ♂; anal tuft tawny olive.

Expanse: ♂♂ 28-30 mm., ♀ 36 mm.

1 ♂ (holotype), 1 ♀ (allotype), 2 ♂♂ (paratypes), Fazenda Congulu, April 1934.

May be placed near to *Euproctis palla* Holland, 1893.

11. *Aroa leonensis* Hampson, 1910.

17 ♂♂, Gamba, December 1934 and January 1935; 1 ♂, Mt. Moco, 20 March, 1934.

These insects have the whitish streak on the hindwing long and narrow; it varies in extent, but in nearly every case is more conspicuous than in Sierra Leone specimens. The ground colour of the forewing is richer, and approximates more nearly to that of *Aroa pampoecila* Collenette, 1930.

12. *Laelia basibrunnea* Holland, 1893 (?).

1 ♀, Mt. Moco, 17 March 1934.

I have seen no ♀♀ of this species from the type locality. The present insect has an almost straight postmedial fascia, without enations, on the forewing, and a dark hindwing. I have placed it under this name with hesitation, but the question must await the arrival of further material.

13. *Dasychira andulo* sp. nov. (Pl. XII, fig. 21).

♂. Palpus snuff brown, lighter on the inner side. Antenna Saccardo's umber. Head, thorax and abdomen snuff brown to Saccardo's umber, dorsal tufts on the basal segments of the abdomen somewhat darker. Pectus, venter and legs pinkish buff, the foreleg heavily marked, the other legs lightly marked, with snuff brown. Forewing snuff brown; a sepia subbasal fascia; antemedial fascia obsolete; discocellulars indistinctly bordered with sepia; a sepia postmedial fascia, crenate, bowed (convexity terminad) from the costa to a point below the discocellulars, thence to the inner margin which it meets at right-angles; a broad sepia subterminal shade, which from vein *Cu*¹ to the inner margin is the most conspicuous marking on the wing; a sepia preterminal fascia, broken at the veins; fringe snuff brown mixed with sepia. Hindwing and fringe drab. Underside of both wings pale pinkish buff, faintly mixed and irrorated with snuff brown; traces on both wings of a darker mark on the discocellulars and a postmedial fascia; fringes of forewing snuff brown mixed with sepia, fringe of hindwing pinkish buff mixed with snuff brown.

Expanse : ♂♂ 33-35 mm.

1 ♂ (holotype), Andulo, December 1934 ; 2 ♂♂ (paratypes), Gamba, December 1934 and January 1935 ; 1 ♂, Mt. Moco, 17 March 1934.

May be placed near to *Dasychira basileus* Hering, 1932.

14. *Dasychira dasymalla* sp. nov. (Pl. XII, fig. 38).

♀. Palpus tawny olive mixed with fuscous. Antenna sayal brown, darker at the base of the pectinations. Head and thorax tawny olive mixed with cinnamon buff. Abdomen, pectus and venter pinkish buff mixed with tawny olive, dorsal tufts on the basal segments of the abdomen Saccardo's umber. Legs tawny olive, the foreleg heavily marked, the other legs lightly marked, with Saccardo's umber. Forewing pinkish buff, irrorated over the whole wing with Saccardo's umber, giving a drab effect ; a streak of sayal brown at the base of the cell ; a prominent Saccardo's umber antemedial fascia, running oblique inwardly from costa to inner margin, almost straight, but turning further oblique inwardly between anal vein and inner margin ; medial area slightly darker than the remainder of the wing ; discocellulars bordered, excepting towards the costa, with Saccardo's umber, the border touching the postmedial fascia at the lower angle of the cell ; a rather prominent sayal-brown postmedial fascia, crenate from costa to lower angle of cell, oblique outwardly from anal vein to inner margin ; a faint sayal-brown subterminal fascia ; a narrow Saccardo's umber preterminal fascia, parallel with the termen ; fringe tawny olive. Hindwing and fringe tawny olive, somewhat lighter towards the base of the wing. *Underside* of both wings, and fringes, tawny olive mixed with Saccardo's umber ; a Saccardo's umber postmedial fascia, almost straight in the forewing, parallel with the termen in the hindwing.

Expanse : ♀♀ 37-38 mm.

1 ♀ (holotype), December 1934, and 1 ♀ (paratype), Gamba, January 1935.

Resembling *Dasychira aeana* Collenette, 1931, in which the antemedial fascia is strongly bowed with concavity basad.

These insects may possibly prove to be the ♀♀ of *Dasychira andulo* described above.

15. *Dasychira hyphasma* sp. nov. (Pl. XII, fig. 37).

♂. Antennal shaft hair brown, pectinations tawny olive. Palpus, head and thorax hair brown mixed with chaetura drab. Abdomen drab, with chaetura-drab dorsal tufts on the basal segments. Pectus, venter and legs drab mixed with whitish, the tarsi heavily shaded with chaetura drab. Forewing drab, the wing crossed by several poorly defined fasciae of chaetura drab ; a patch of cinnamon buff on the discocellulars, edged with chaetura drab ; a small admixture of white on the proximal side of the postmedial fascia ; fringe drab, pinkish buff at the vein-ends. Hindwing pale pinkish buff ; fringe whitish, mixed interneurally with drab, the latter colour extending to the terminal area. *Underside* of forewing, and fringe, drab, the fringe darker interneurally. *Underside* of hindwing, and fringe, pale pinkish buff, mixed in the costal area with drab.

Expanse : ♂ 33 mm.

1 ♂ (holotype), Gamba, January 1935.

16. *Lomadonta erythrina* Holland, 1893.

2 ♂♂, 1 ♀, Quirimbo, 7-20 May 1934.

The ♀ is of the extreme yellow form described as *L. johnstoni* Swinhoe, 1903, while one of the ♂♂ is of the reddish form and the other slaty grey.

17. *Lomadonta obscura* Swinhoe, 1904.

12 ♂♂, 1 ♀, Quirimbo, 1-20 May 1934.

All the ♂♂ are considerably darker than specimens from the Gold Coast and Cameroons.

18. *Aclonophlebia xuthomene* sp. nov. (Pl. XII, fig. 13).

♀. Palpus and antenna fuscous. Frons fuscous, remainder of head pale pinkish buff. Thorax and base of abdomen pale pinkish buff mixed with fuscous, remainder of abdomen fuscous mixed with antimony yellow. Pectus, venter and legs fuscous, the legs marked at the joints with pinkish buff. Forewing pale pinkish buff; five almost square patches of fuscous along the costa, approximately equidistant, and forming the starting-point of basal, subbasal, antemedial, postmedial and subterminal fasciae of the same colour; the antemedial and postmedial fasciae join below the lower margin of the cell; the subterminal fasciae roughly parallel to the termen, crenate, points on the veins, concavities terminad; a crescent-shaped patch of orange buff on the discocellulars, edged narrowly with fuscous; a series of terminal interneural fuscous spots, extending through the fringe, which is otherwise pale pinkish buff. Hindwing pale pinkish buff; a hair-brown subterminal fascia, narrow from costa to vein *Cu*¹, thence broadening considerably and running oblique outwardly to the anal angle, where it invades the fringe; fringe pale pinkish buff, fuscous interneurally. *Underside* of both wings, and fringes, pale pinkish buff, the markings reproduced as on upperside.

Expanse: ♀ 37 mm.

1 ♀ (holotype), Gamba, January 1935, R. Braun.

May be placed near to *Aclonophlebia rhodalipha* Felder, 1874.

19. *Aclonophlebia atectonipha* sp. nov. (Pl. XII, fig. 40).

♀. Palpus, head and thorax fuscous, with a narrow collar of orange buff between head and thorax. Antenna fuscous black. Abdomen ochraceous buff. Pectus, venter and legs fuscous, mixed with ochraceous buff on the hindtarsus. Forewing whitish mottled with fuscous, the latter colour predominating in the medial third of the wing and in the apical area; a small patch of mars yellow on the discocellulars; fringe whitish, fuscous interneurally. Hindwing pale yellow orange; a broad patch of fuscous occupying the apical area, down to a point just below vein *Cu*¹; fringe pale yellow orange, fuscous interneurally from apex to vein *Cu*¹. *Underside* of both wings, and fringes, as on upperside.

Expanse: ♀ 36 mm.

1 ♀ (holotype), Fazenda Congulu, 7-11 April 1934.

20. *Palasea albimacula* Wallengren, 1865.

1 ♂, 11 ♀♀, Quirimbo, 7-12 May 1934.

All the ♀♀ are distinctly darker on the forewing than average specimens from Natal and Rhodesia. The ♂ cannot be separated from Natal examples.



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New LYMANTRIIDÆ from Africa and Madagascar